

### **REMARKS**

Claims 3, 8-10, 12-16, 18-20, 22-23 and 25-26 have been amended. Support for the amendments can be found throughout the specification. No new matter has been added. Claim 17 has been cancelled. New claims 27 and 28 have been added. Support for the new claims can be found in the originally filed claims.

Applicants thank the Examiner for the telephonic interview on April 23, 2008, during which Applicants and the Examiner discussed proposed amendments to the claims.

Claims 3, 8-10, 12-16 and 18-28 are pending.

### **CLAIM REJECTIONS**

#### ***Rejection under 35 U.S.C. § 101***

The Examiner has maintained the rejection of claims 1-3, 8-10, 12-17 and 26 under 35 U.S.C. § 101 as being “directed to non-statutory subject matter.” See Office Action at p. 2 and Advisory Action. Claims 8-10, 12-17 and 26 depend from independent claim 3.

Claim 3 relates to a pharmaceutical composition including isolated  $10^4$  to  $10^{10}$  killed whole cells of a bacterium and a pharmaceutically acceptable carrier, diluent or excipient. Applicants respectfully submit that claim 3 does not read on naturally occurring bacteria. Applicants respectfully request the withdrawal of this rejection with respect to claim 3 and claims dependent therefrom.

#### ***Rejection under 35 U.S.C. § 102(b)***

The Examiner has maintained the rejection of claims 1-3 and 8-10 under 35 U.S.C. § 102(b) as being unpatentable over U.S. Patent No 4,599,310 to Matson et al. (“Matson”). See Office Action at p. 2. Claims 1 and 2 have been cancelled thus rendering this rejection moot with respect to those claims. Claims 8-10 depend from independent claim 3.

Claim 3 relates to a pharmaceutical composition that includes isolated  $10^4$  to  $10^{10}$  killed whole cells of a bacterium selected from the genera *Rhodococcus*, *Gordonia*, *Dietzia*, *Tsukamurella* and *Nocardioides* and a pharmaceutically acceptable carrier, diluent or excipient, which pharmaceutical composition in use modifies a cellular immune response.

Matson describes an antibiotic (sandramycin) produced by fermentation of a *Nocardioides* strain and further describes purifying sandramycin and the uses of this purified antibiotic. See col. 2, lines 58-60, col. 7, line 41 to col. 8, line 64, and col. 10, line 62 to col. 12, line 25. Matson describes cultivating cells for the production of an antibiotic. See col. 1, line 6 to col. 7, line 40. To extract the antibiotic, Matson describes that “[r]aw fermentation whole broth (~ 8 liters) was transferred to a 20-liter tank ...” and “[a]n equal volume of ethyl acetate was added.” See col. 13, lines 25- 29 and flow chart depicting isolation of the antibiotic in cols. 7-8. Matson does not describe a pharmaceutical composition that includes isolated  $10^4$  to  $10^{10}$  killed whole cells of a bacterium selected from the genera *Rhodococcus*, *Gordonia*, *Dietzia*, *Tsukamurella* and *Nocardioides* and a pharmaceutically acceptable carrier, diluent or excipient, which pharmaceutical composition in use modifies a cellular immune response.

Accordingly, independent claim 3 is not anticipated by Matson. Claims 8-10 depend from claim 3 and are also not anticipated by Matson for at least the reasons described above. Applicants respectfully request reconsideration and withdrawal of this rejection.

***Rejection under 35 U.S.C. § 112***

The Examiner has rejected claims 18-25 under 35 U.S.C. § 112, second paragraph for being indefinite “for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.” See Office Action at p. 3. Claims 20-22 depend from independent claim 18 and claims 23-25 depend from independent claim 19. In an effort to expedite prosecution and not in acquiescence to any rejection, Applicants have amended claims 18 and 19.

Claim 18 relates to a method for treating or preventing a condition in a subject including administering an effective amount of a composition including  $10^4$  to  $10^{10}$  killed whole cells of a bacterium selected from the genera *Rhodococcus*, *Gordonia*, *Dietzia*, *Tsukamurella* and *Nocardioides* and a pharmaceutically acceptable carrier, diluent or excipient, which composition in use modifies a cellular immune response. Claim 19 relates to a method for immunizing a subject including administering a composition including  $10^4$  to  $10^{10}$  killed whole cells of a bacterium selected from the genera *Rhodococcus*, *Gordonia*, *Dietzia*, *Tsukamurella* and

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*Nocardioides* and a pharmaceutically acceptable carrier, diluent or excipient, which composition in use modifies a cellular immune response.

Applicants respectfully request the withdrawal of this rejection with respect to claims 18 and 19 and claims dependent therefrom.

### **CONCLUSION**

For the foregoing reasons, Applicants respectfully request reconsideration and withdrawal of the pending rejections. Applicants believe that the claims now pending are in condition for allowance. An Interview Summary is enclosed. Should any further fees be required by the present Amendment, the Commissioner is hereby authorized to charge Deposit Account **19-4293**.

Respectfully submitted,

Date: 4-29-08



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Atty Docket No.: 15373.0002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of: McIntyre et al.  
Serial No. 10/526,228  
Filed : November 16, 2005  
For: *Whole Bacterial Cells as Immune Modulator*

Examiner: Swartz, Rodney P  
Group Art Unit: 1645

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**STATEMENT OF SUBSTANCE OF INTERVIEW**

Applicants thank the Examiner for the interview conducted with the Applicants' representative on April 23, 2008. During the Interview, Applicants' representative and the Examiner discussed proposed amendments to the claims to overcome the 35 U.S.C. § 101 and 112, second paragraph rejections. Applicants' representative and the Examiner also briefly discussed the 35 U.S.C. § 102(b) rejection.

The Statement of Substance of Interview is hereby filed within 30 days from the mailing date of the Interview Summary form. Should any fees be required by the present statement, the Commissioner is hereby authorized to charge Deposit Account **19-4293**.

Respectfully submitted,

Date: 4/29/08

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